

On the 14th page of the specification, please amend the first sentence of the second full paragraph starting at line 13 to read as follows:

B1 ~~Sequences for SRP RNA can be obtained through publicly available databases, e.g., on the world wide web, or the GenBank database.~~

In the Claims

Please amend claims 1, 2, 4, 5, 8, 10, 19-20, 24, 26, 29-30, 40, 42 and 43 to read as follows. A marked-up version of the amended claims showing the amendments is attached hereto.

1. (Amended) A method for detecting in a sample a non-viral organism belonging to a group, the group consisting of at least one, but less than all non-viral organisms, the method comprising the steps of:

- B2
- (i) introducing a sample comprising SRP RNA into an electrophoretic medium comprising an immobilized nucleic acid probe capable of specifically hybridizing to a subsequence of SRP RNA from a group of non-viral organisms;
 - (ii) subjecting the electrophoretic medium to an electric field such that the sample comprising SRP RNA migrates through the medium and the immobilized nucleic acid probe hybridizes to SRP RNA from the group of non-viral organisms but does not detectably hybridize to SRP RNA from other non-viral organisms that do not belong to the group; and,
 - (iii) detecting hybridization of the nucleic acid probe to SRP RNA, wherein hybridization of the probe is indicative of the presence of a non-viral organism from the group.

2. (Amended) The method of claim 1, wherein the immobilized nucleic acid probe comprises a detectable moiety.

4. (Amended) The method of claim 1, wherein step (i) further comprises using one or more additional immobilized nucleic acid probes capable of specifically hybridizing to a subsequence of SRP RNA from the non-viral organism.

B3
5. (Amended) The method of claim 4, wherein one of the immobilized nucleic acid probes comprises a detectable moiety.

B4
8. (Amended) The method of claim 1, wherein the immobilized nucleic acid probe is selected from the group consisting of DNA, PNA, and 2'-O-methyl RNA.

B5
10. (Amended) The method of claim 1, wherein the immobilized nucleic acid probe is perfectly complementary to the subsequence of SRP RNA.

19. (Twice Amended) The method of claim 1, wherein the immobilized nucleic acid probe has a nucleotide sequence selected from the group consisting of: GCTGCTTCCTTCCGGACCTGAC (SEQ ID NO:2); GCTGCTTCCTTCCGGACCTGA (SEQ ID NO:3); GGCACACGCGTCATCTGC (SEQ ID NO:9); GCTGCTTCCTTC (SEQ ID NO:4); GCTGCTTCCTTCCGGACCTGAGTGAATACGTTCCCGGGCCT (SEQ ID NO:7); GCTGCTTCCTTCCGGACCTGACAAAAACGATAAACCAACCA (SEQ ID NO:8); GCTGCTTCCTTCCGGACCTGACCTGGTAAA (SEQ ID NO:11); GCTGCTTCCTTCCG (SEQ ID NO:5); GACCTGACCTGGTA (SEQ ID NO:6); CGGACCTGACCTG (SEQ ID NO:22); CGGACCUGACCAG (SEQ ID NO:24); and CGGACCUGACAAG (SEQ ID NO:25).

20. (Amended) A method for detecting in a sample a non-viral organism belonging to a group, the group consisting of at least one, but less than all of non-viral organisms, the method comprising the steps of:

- (i) contacting a sample comprising SRP RNA with a first nucleic acid probe capable of specifically hybridizing to a subsequence of SRP RNA from a group of non-viral organisms;
- (ii) incubating the sample comprising SRP RNA and the first nucleic acid probe to form a duplex SRP RNA from the group of non-viral organisms;
- (iii) introducing the duplex SRP RNA into an electrophoretic medium comprising a gel-immobilized nucleic acid probe capable of specifically hybridizing to a subsequence of the duplex SRP RNA from the group of non-viral organisms;
- (iv) subjecting the electrophoretic medium to an electric field such that the duplex SRP RNA migrates through the medium and the gel-immobilized nucleic acid probe hybridizes to the subsequence of the duplex SRP RNA from the group of non-viral organisms, but does not detectably hybridize to SRP RNA from other non-viral organisms that do not belong to the group; and,
- (v) detecting the hybridization of the gel-immobilized nucleic acid probe to the duplex SRP RNA, wherein the hybridization of the gel-immobilized nucleic acid probe is indicative of the presence of a non-viral organism from the group.

24. (Amended) The method of claim 20, wherein the step of contacting further comprises the use of one or more additional nucleic acid probes.

26. (Amended) The method of claim 20, wherein the first nucleic acid probe is an adaptor probe comprising a subsequence that hybridizes to the gel-immobilized nucleic acid probe.

29. (Amended) The method of claim 20, wherein the first nucleic acid probe is about 15 to about 25 nucleotides in length.

B¹⁰ cont. 30. (Amended) The method of claim 20, wherein the gel-immobilized nucleic acid probe and the first nucleic acid probe are selected from the group consisting of DNA, PNA, and 2-O-methyl RNA.

B¹¹ 40. (Amended) The method of claim 20, wherein the non-viral organism is a bacterium selected from the group consisting of *Propionibacterium* sp., *Klebsiella* sp., *Enterobacter* sp., *Serratia* sp., *Salmonella* sp., *Legionella* sp., *Pseudomonas* sp., *Haemophilus* sp., *Escherichia* sp., *Mycoplasma* sp., *Micrococcus* sp., *Listeria* sp., *Bacillus* sp., *Staphylococcus* sp., *Streptococcus* sp., *Clostridia* sp., *Neisseria* sp., *Helicobacter* sp., *Vibrio* sp., *Campylobacter* sp., *Bordetella* sp., *Ureaplasma* sp., *Treponema* sp., *Leptospira* sp., *Borrelia* sp., *Actinomyces* sp., *Nocardia* sp., *Chlamydia* sp., *Rickettsia* sp., *Coxiella* sp., *Ehrlichia* sp., *Rochalimaea* sp., *Brucella* sp., *Yersinia* sp., *Fracisella* sp., and *Pasteurella* sp.

B¹² 42. (Amended) The method of claim 20, wherein the first nucleic acid probe has a nucleotide sequence selected from the group consisting of:
GCTGCTTCCTTCCGGACCTGAGTGAATACGTTCCCGGGCCT (SEQ ID NO:7); and
GCTGCTTCCTTCCGGACCTGACAAAAACGATAAACCAACCA (SEQ ID NO:8).

43. (Amended) The method of claim 26, wherein the adaptor probe has a nucleotide sequence selected from the group consisting of:
GCTGCTTCCTTCCGGACCTGAGTGAATACGTTCCCGGGCCT (SEQ ID NO:7); and
GCTGCTTCCTTCCGGACCTGACAAAAACGATAAACCAACCA (SEQ ID NO:8).

REMARKS

In the Office Action, claims 1-5, 8, 10-12, 19, 20, 24, 26, 29, 30, 40, 42 and 43 were considered, and claims 44 and 50 were withdrawn. Applicants amend claims 1, 2, 4, 5, 8, 10, 19, 20, 24, 26, 29, 30, 40, 42 and 43. Accordingly, after entry of this Amendment, claims 1-5, 8, 10-12, 19, 20, 24, 26, 29, 30, 40, 42 and 43 will be pending for further examination. The claims are amended to clarify the claimed subject matter. Basis for the amendments can be found throughout the application as filed.

Specifically, claim 1 and claim 20 each have been amended to recite the method of detecting a non-viral organism in a sample by electrophoresing the sample and the duplex SRP RNA, respectively, in an electrophoretic medium comprising an immobilized nucleic acid probe to specifically hybridize to a subsequence of SRP RNA. Basis for these amendments can be found throughout the specification, and *inter alia* at page 15, lines 18-23; and page 20, lines 27-29. Claim 1 and claim 20 each have been further amended to recite a nucleic acid probe capable of "specifically hybridizing" to a subsequence of SRP RNA. Basis for these amendments can be found throughout the specification, and *inter alia* at page 4, line 33-34.